

Notice of Allowability

Application No.

10/713,154

Examiner

Douglas N. Washburn

Applicant(s)

LIU, YEN-FU

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 6 October 2005.
2. ☒ The allowed claim(s) is/are 1-12, 14-27, 29 and 30.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1 Applicant amendment overcomes §102(e) rejection of claims 1-6, 8-12 and 25-27 and the rejection is withdrawn.

Allowable Subject Matter

2 Claims 1-12, 14-27, 29 and 30 are allowed.

Claims 7 and 20 were previously indicated as allowable in office action mailed 5 May 2005.

The following is an examiner's statement of reasons for allowance:

Claim 1 recites, in part, "standard message digest is obtained by simulating behavior of said integrated circuit as well as said one-way-hash function in a computer and generating said standard message digest in response to said test vector data.". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 2-12 depend from claim 1.

Claim 14 recites, in part, "an automated test equipment for sending test vector data to said integrated circuit so that said integrated circuit produces response data in response to said test vector data and for receiving a test message digest to be verified against a standard message digest to determine whether said test message digest meets a predetermined requirement;". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 15-24 depend from claim 14.

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Claim 25 recites, in part, "a plurality of IP blocks and a plurality of one-way-hash modules wherein said one-way-hash modules are used for receiving said response data and performing a one-way-hash function to generate a test message digest to be sent to said automated test equipment. and said one-way-hash modules are respectively embedded in corresponding IP blocks as part of a BIST circuit in said IP blocks and wherein each of said IP blocks comprises a main module". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 26 and 27 depend from claim 25.

Claim 29 recites, in part, "a plurality of one-way-hash hardware circuits for receiving said response data and performing a one-way-hash function to generate said test message digest, wherein said one-way-hash hardware circuits are respectively embedded in corresponding IP blocks as part of a BIST circuit in said IP blocks.". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 30 depends from claim 29.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

3 Applicant argument regarding claim 14 is persuasive and the §102(e) rejection of claims 14-24 is withdrawn. Specifically, the claimed limitation of an automated test equipment, a one-way-hash module and a comparator, wherein the one-way-hash module can be implemented in an integrated circuit to be tested which contrasts with the reference Ober's apparatus, a secure communication platform on an integrated circuit, not accelerated testing of an integrated circuit. Ober fails to teach or suggest any components of the invention.

Conclusion

4 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

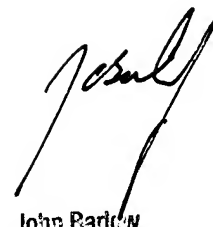
Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DNW

A handwritten signature in black ink, appearing to read "John Barlow", written over a horizontal line.

John Barlow
Supervisory Patent Examiner
Technology Center 2800